

This invention relates to a socket for a cathode ray tube (CRT) in which the socket is part of a printed circuit board.

In modern television display apparatus, a socket for the electron gun of a CRT is constructed as part of a printed circuit board which may contain one or more video output amplifiers. This is done in order to keep the connections, between the outputs of the video amplifiers and the electrodes of the electron gun, as short as possible so as to avoid degradation of the video output signals, whose frequencies may exceed 5 megahertz. Generally, the socket for the CRT is mounted on the circuit board, so that when the socket is engaged with the CRT, the circuit board is positioned at the rear of the CRT with the socket.

The trend in modern CRT displays is to shorten the distance from the screen end of the cabinet to the rear of the cabinet. This can be accomplished in several ways. For example, a greater deflection angle will shorten the funnel portion of the CRT. At the present time, the largest deflection angle in commercial television apparatus is  $110^\circ$ .

The instant invention allows further shortening of the cabinet by shortening the protrusion of the CRT socket board beyond the end of the neck portion of the CRT. The invention provides an arrangement for coupling a CRT to a socket which is mounted on a circuit board, in which the CRT has a funnel portion and a neck portion containing an electron gun. The terminals for the electron gun are mounted along the side of the neck portion of the CRT. The circuit board is positioned with a first side which faces the funnel portion and a second side which faces away from the funnel portion. The socket has terminals which engage corresponding terminals on the neck portion of the CRT. The socket terminals are positioned on the second side of the circuit board. In this way, the socket and circuit board may be positioned with only a minimum protrusion to the rear of the end of the neck portion of the CRT.